WHAT IS CLAIMED IS:

1. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel;

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction; and

a support member being attached to the crankshaft to support said flywheel on the crankshaft, said support member having an axially extending portion attachable to and detachable from said flywheel in the axial direction.

2. The flywheel assembly according to claim 2, wherein said support member supports said flywheel in the axial direction.

3. The flywheel assembly according to claim 1, wherein said support member supports said flywheel in radial direction.

4. The flywheel assembly according to claims 1, wherein said support member is flexible in the bending direction and supports said flywheel such that said flywheel is movable in the bending direction.

5. The flywheel assembly according to claim 1, wherein said support member supports said flywheel through said damper mechanism.

6. The flywheel assembly according to claim 1, wherein said support member transmits torque to said damper mechanism.

7. The flywheel assembly according to claim 1, wherein said support member has a plurality of axially extending portions arranged in said rotation direction.

8. The flywheel assembly according to claim 7, wherein said support member is composed of an annular portion fixed to the crankshaft, a plurality of radially outward extending portions extending from said annular portion, and said plurality of axially extending portions extend from said radially outward extending portions.

9. The flywheel assembly according to claim 8, wherein an axial gap is secured between said radially outward portions and a crankshaft side member.

10. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel;

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction; and

a torque transmission member being attached to the crankshaft to transmit torque to said damper mechanism, said torque transmission member having axially extending portions attachable to and detachable from said damper mechanism in the axial direction.

11. The flywheel assembly according to claim 10, wherein said damper mechanism includes a first damper having a first spring and a second damper having a second spring, said second spring having a higher rigidity than said first spring, and

said first damper includes said first spring, a first member configured to support rotation direction ends of said first spring, and a second member rotatable relative to said first member and is configured to support said rotation direction ends of said first spring, and

said axially extending portions are engaged with said first member in said rotation direction.

12. The flywheel assembly according to claim 11, wherein said first member is formed with a plurality of first axially penetrating holes, and said axially extending portions extend through said first axially penetrating holes respectively.

13. The flywheel assembly according to claim 12, wherein said second member is formed with a plurality of second axially penetrating holes corresponding to said first axially penetrating holes, and said second axially penetrating holes are longer in said rotation direction than said first axially penetrating holes and said axially extending portions, and

said axially extending portions extend through said second axially penetrating holes in said axial direction.

14. The flywheel assembly according to claim 13, wherein said second member has a block shape, and said first member is a plate having at least a portion located on one axial side of said second member.

15. The flywheel assembly according to claim 11, wherein said first spring is held by said first member and said second member such that the first spring in not separable from said first member and said second member.

16. The flywheel assembly according to claim 11, wherein said second spring includes a plurality of second springs, said plurality of second springs in arranged in said rotation direction, and

said first damper includes a plurality of first dampers, said plurality of first dampers is located between said second springs in said rotation direction.

17. The flywheel assembly according to claim 16, wherein said plurality of first springs is completely disposed within an annular area defined by a radially inward edge and a radially outward edge of said plurality of second springs.

18. The flywheel assembly according to claim 11, wherein said second member is engaged with rotation direction ends of said second spring such that said second member and said second spring can transmit torque therebetween.

19. The flywheel assembly according to claims 10, wherein said torque transmission member is flexible in a bending direction and supports said flywheel such that said flywheel can move in said bending direction.

20. The flywheel assembly according to claims 10, wherein said axially extending portions are arranged in said rotation direction.

21. The flywheel assembly according to claim 20, wherein said torque transmission member is composed of an annular portion fixed to the crankshaft, a plurality of radially outward extending portions extends from the annular portion, and said plurality of axially extending portions extends from said radially outward extending portions.

22. The flywheel assembly according to claim 21, wherein an axial gap is secured between said radially outward portions and a crankshaft side member.

23. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel;

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction; and

a flexible member being flexible in a bending direction and supporting said flywheel on the crankshaft, said flywheel being movable in said bending direction, said flexible member having an axially extending portion attachable to and detachable from said flywheel in the axial direction.

24. The flywheel assembly according to claim 23, wherein said axially extending portion has a plurality of axially extending portions arranged in said rotation direction.

25. The flywheel assembly according to claim 24, wherein said flexible member is composed of an annular portion fixed to the crankshaft, a plurality of radially outward extending portions extending from said annular portion, and said plurality of axially extending portions extending from said radially outward extending portions.

26. The flywheel assembly according to claim 25, wherein an axial gap is secured between said radially outward portions and a crankshaft side member.

27. The flywheel assembly according to claim 23, wherein said flexible member supports said flywheel through said damper mechanism.

28. The flywheel assembly according to claim 23, wherein said axially extending portions input torque to said damper mechanism.

29. The flywheel assembly according to claim 28, wherein said damper mechanism includes a first damper having a first spring and a second damper having a second spring, said second spring having a higher rigidity than said first spring.

30. The flywheel assembly according to cliam 29, wherein said first damper includes said first spring, a first member to supporting rotation direction ends of said first spring and a second member rotatable relative to said first member and supporting said rotation direction ends of said first spring, and

said axially extending portions are engaged with said first member in said rotation direction.

31. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel; and

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction;

said damper mechanism including a first damper having a first spring and a second damper having a second spring, said second spring having a higher rigidity than said first spring, and

said first damper including said first spring, a first member being configured to support rotation direction ends of said first spring, a second member being rotatable relative to said first member and being configured to support said rotation direction ends of said first spring, and a torque transmission member being attached to the crankshaft, said torque transmission member being engaged with said first member in said rotation direction and attachable to and detachable from said first member in the axial direction.

32. The flywheel assembly according to claim 31, wherein said first member is formed with a first axially penetrating hole, and said torque transmission member extends through said first axially penetrating hole.

33. The flywheel assembly according to claim 32, wherein said second member is formed with a second axially penetrating hole corresponding to said first axially penetrating hole, and said second axially penetrating hole is longer in said

rotation direction than said first axially penetrating hole and said torque transmission member, and

said torque transmission member extends through said second axially penetrating hole in the axial direction.

34. The flywheel assembly according to claim 33, wherein said second member has a block shape, and said first member is a plate having at least a portion located on one axial side of said second member.

35. The flywheel assembly according to one of claims 31, wherein said first spring is held by said first member and said second member such that said first spring is not separable from said first member and said second member.

36. The flywheel assembly according to claim 35, wherein said second member is formed with a first concave portion to accommodate said first spring.

37. The flywheel assembly according to claim 36, wherein said first member has a wall portion to cover said first concave portion.

38. The flywheel assembly according to claim 37, wherein said second member is formed with a pair of second concave portions extending in said rotation direction from rotation direction ends of said first concave portion, and said second concave portion has a width shorter than that of said first concave portion, and said first member has a pair of claw portions abutting said rotation direction ends of said

first spring and movable within said first and second concave portions in said rotation direction.

39. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel having a clutch device installed thereto;

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction; and

said flywheel being configured to hold non-detachably said damper mechanism thereto.

40. The flywheel assembly according to claim 39, wherein said damper mechanism includes a first damper having a first spring and a second damper having a second spring, said second spring having a higher rigidity than said first spring, and

said flywheel being configured to hold non-detachably said first damper and said second damper thereto.

41. The flywheel assembly according to claim 39, wherein said flywheel has a flywheel main body formed with a friction surface with which said clutch device is engaged and a disk-like plate fixed to said flywheel main body, and

said disk-like plate holds said damper mechanism.

42. The flywheel assembly according to claim 40, wherein said flywheel has a flywheel main body formed with a friction surface with which said clutch device is engaged, and first and second disk-like plates fixed to said flywheel main body, and

said first disk-like plate supports an axially transmission side of said second spring, and said second disk-like plate is fixed to said first disk-like plate and supports an axially engine side of said second spring.

43. The flywheel assembly according to claim 42, wherein said first disk-like plate supports an axially transmission side of said first damper, and said second disk-like plate is fixed to said first disk-like plate and supports an axially engine side of said first damper.

44. The flywheel assembly according to claim 40, further comprising a torque transmission member being attached to said crankshaft and engaged with said damper mechanism, said torque transmission member being attachable to and detachable from said damper mechanism in the axial direction.

45. The flywheel assembly according to claim 44, wherein said torque transmission member is engaged with said damper mechanism such that said torque transmission member inputs torque to said first spring of said first damper.

46. The flywheel assembly according to one of claims 40, further comprising a friction generating mechanism being configured to generate friction when the crankshaft and said flywheel rotate relatively, and

said flywheel non-detachably holds said friction generating mechanism thereto.

47. The flywheel assembly according to claim 46, wherein said friction generating mechanism is engaged with a transmission side member such that the

friction generating mechanism is attachable to and detachable from said crankshaft side member.

48. The flywheel assembly according to claim 46, wherein a radial position of said friction generating mechanism is radially outward that of said damper mechanism, and said friction generating mechanism is located within an axial area defined by axial edges of said second spring.

50. A flywheel assembly to which torque is transmitted from a crankshaft of an engine, comprising:

a flywheel having a clutch device installed thereto;

a damper mechanism being configured to connect elastically said flywheel to the crankshaft in a rotation direction; and

a friction generating mechanism being configured to generate friction when the crankshaft and said flywheel rotate relatively;

said flywheel being configured to hold non-detachably said damper mechanism and said friction generating mechanism thereto.

51. The flywheel assembly according to claim 50, further comprising a first engagement portion being fixed to said crankshaft and engaged with said damper mechanism, said first engagement portion being attached to and detachable from said damper mechanism in the axial direction, and a second engagement portion being fixed to said crankshaft and engaged with said friction generating mechanism, said second engagement portion being attachable to and detachable from said friction generating mechanism in the axial direction.